

# JA CIĘ PIERNI(K)CZE

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **22**
- SRM **39.4**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.9 liter(s)**
- Total mash volume **22.5 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **16.9 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **14 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2 kg (35.6%)	80 %	4
Grain	Monachijski	0.75 kg (13.3%)	80 %	16
Grain	Strzegom Karmel 300	0.2 kg (3.6%)	70 %	299
10min 72stopni				
Grain	Cooke	0.17 kg (3%)	70 %	70
Grain	Brown Malt	0.5 kg (8.9%)	60 %	180
Grain	BESTMALZ Special X	0.5 kg (8.9%)	73 %	350
Grain	BESTMALZ - Czekoladowy	0.5 kg (8.9%)	60 %	1000
10min 72 stopni				
Grain	Płatki owsiane	1 kg (17.8%)	80 %	3
kleikowanie w 6l wody				

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	200 ml	---

## Extras

Type	Name	Amount	Use for	Time
Flavor	przyprawa do piernika	15 g	Boil	15 min
Fining	mech irlandzki	4 g	Boil	15 min
Flavor	laktoza	800 g	Boil	15 min